

Title (en)

Electrochemical generator and operation thereof.

Title (de)

Elektrochemischer Generator und dessen Arbeitsweise.

Title (fr)

Générateur électrochimique et son fonctionnement.

Publication

EP 0166812 A1 19860108 (EN)

Application

EP 84113561 A 19841109

Priority

US 61196384 A 19840518

Abstract (en)

An electrochemical generator which utilizes the centrifugal force produced by rotating the electrodes (14, 19; 75, 76) of the generator and preferably the electrolyte to perform a variety of functions within the generator including circulation of the electrolyte past the electrodes, circulation of air past the gas electrode (14, 75) where the generator is a metal-gas generator, controlling dendrite growth and providing relatively dense uniform deposition of metal during recharge for a rechargeable metal-air generator, keeping electrolyte and reaction products away from the pores of a gas electrode to prevent flooding or clogging of the pores, separating reaction products from the electrolyte, maintaining uniform spacing between the electrodes as the metal electrode of a gas metal generator is consumed, flushing and draining electrolyte for standstill periods, maintaining good electrical contact between electrodes and their current collectors while still permitting easy replacement of consumed electrodes and automatically switching electrolyte flow and other functions when the generator changes from its discharging to its charging, flushing or draining state.

IPC 1-7

H01M 14/00; **H01M 12/08**; **H01M 10/36**; **H01M 2/38**

IPC 8 full level

H01M 2/36 (2006.01); **H01M 2/38** (2006.01); **H01M 2/40** (2006.01); **H01M 8/04** (2006.01); **H01M 10/42** (2006.01); **H01M 10/44** (2006.01); **H01M 12/06** (2006.01); **H01M 12/08** (2006.01); **H01M 50/77** (2021.01); **H01M 4/02** (2006.01)

CPC (source: EP US)

H01M 8/04 (2013.01 - EP US); **H01M 10/4214** (2013.01 - EP US); **H01M 12/065** (2013.01 - EP US); **H01M 12/08** (2013.01 - EP US); **H01M 50/70** (2021.01 - EP US); **H01M 8/04089** (2013.01 - EP US); **H01M 8/04276** (2013.01 - EP US); **H01M 2004/024** (2013.01 - EP US); **Y02E 60/10** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

- US 4399018 A 19830816 - BIRKLE SIEGFRIED [DE], et al
- DE 2213022 B2 19760805
- GB 1321951 A 19730704 - NORTH AMERICAN ROCKWELL
- US 4025698 A 19770524 - VON KRUSENSTIERNA OTTO

Cited by

CN103858273A

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

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DOCDB simple family (application)

US 61196384 A 19840518; BR 8405861 A 19841116; EP 84113561 A 19841109; JP 24155884 A 19841115